

REMARKS

By this Amendment, claims 1, 4, 7 and 10 are amended and claims 12-17 are newly added. Claims 1, 4 and 10 have been amended to correct minor informalities. This is intended not only to place the claims in proper U.S. format but also to broaden the scope of the claims accordingly. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-17 will remain pending in the patent application. Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

In the Office Action, the drawings were objected to under 37 C.F.R. 1.83(a). The rejection is respectfully traversed. Claim 7 is amended to delete the recitation "respective outer parts of the respective shutters move outside the storage space." With respect to the remaining language of claim 7, it is respectfully submitted that the figures, as filed, show that the inner parts of the respective shutters move into the storage space together with the patterning structure. (*See e.g.*, FIGS. 2C-D). Therefore, Applicants respectfully submit that the amendment to claim 7 obviates the objection to the drawings.

Accordingly, reconsideration and withdrawal of the objection to the drawings are respectfully requested.

Claim 7 was rejected under 35 U.S.C. §112, second paragraph. The rejection is respectfully traversed.

As mentioned previously, the recitation "respective outer parts of the respective shutters move outside the storage space" is deleted in claim 7.

Accordingly, reconsideration and withdrawal of the rejection of claim 7 under 35 U.S.C. §112, second paragraph are respectfully requested.

Claims 1-6 and 8-11 were rejected under 35 U.S.C. §103(a) based on Shiraishi (U.S. Pat. No. 6,542,221) in view of Miwa (U.S. Pat. No. 6,829,038). The rejection is respectfully traversed.

Claim 1 recites a lithographic projection apparatus comprising, *inter alia*, a dust-tight storage container defining a non-vacuum storage space to contain at least one patterning structure, wherein the storage container is arranged to be coupled with a transfer container to exchange said at least one patterning structure through a closeable passage between the transfer container and the storage container; and a vacuum chamber to receive said at least one patterning structure via or from the storage container. As conceded by the Office Action, Shiraishi fails to teach or suggest a vacuum chamber. The Examiner then relied on Miwa as

allegedly teaching this feature and contended that it would have been obvious to provide vacuum to chambers 18 and 15 (identified in the Office Action as being “the vacuum chamber” and “the further vacuum chamber,” respectively). Applicants respectfully disagree at least because Shiraishi teaches away from such a possibility.

Shiraishi discloses a lithographic apparatus including an illumination system housing 2 that is coupled with a reticle room 15, which, in turn, is coupled with a reserve room RI that includes a first room 83 and a second room 84. (See FIGS. 1 and 9). Shiraishi discloses that the housing 2, the reticle room 15 and the reserve room RI are maintained under a predetermined pressure of low absorbent gas higher than the atmospheric pressure in order to limit the external atmosphere from leaking into the inside of each room. (See col. 15, lines 1-16, col. 24-32, col. 17, lines 51-58, col. 34, lines 65-67 and col. 35, lines 1-11). Specifically, Shiraishi discloses that the controller 100 is configured to control the gas supply valves “such that the pressure of the specific gas atmosphere inside the first and second rooms 83, 84 of the reserve room RI is the predetermined target value as in the reticle room 15 and wafer room all the time.” (See col. 35, lines 1-4, emphasis added). Therefore, Shiraishi teaches away from providing vacuum to rooms 83 and 18. Applicants respectfully note that the suggested modification would defeat the intended purpose of preventing a flow of contamination from entering these rooms. (See MPEP §2143). For at least this reason, it is respectfully submitted that it would not have been obvious to combine Shiraishi’s teachings with Miwa’s teachings.

Claims 2-6 and 8-9 are patentable over Shiraishi, Miwa or a combination thereof at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 10 is patentable over Shiraishi, Miwa or a combination thereof for at least similar reasons as provided above for claim 1. Namely, claim 10 is patentable over Shiraishi, Miwa or a combination thereof at least because this claim recites a method comprising, *inter alia*, transferring a patterning structure from the transfer container into a substantially dust-tight non-vacuum storage space of the lithographic apparatus; and transferring the patterning structure from the storage space into a vacuum chamber. Applicants respectfully submit that it would not have been obvious to provide this feature based on Shiraishi’s and Miwa’s teachings because Shiraishi teaches away from these features and from Miwa’s teachings. Therefore, claim 10 is patentable. Claim 11 is patentable over Shiraishi, Miwa or a combination thereof at least by virtue of its dependency from claim 10 and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-6 and 8-11 under 35 U.S.C. §103(a) based on Shiraishi in view of Miwa are respectfully requested.

Claims 1-3, 5-6, 8 and 10 were rejected under 35 U.S.C. §103(a) based on Matsumoto (U.S. Pat. No. 6,471,037) in view of Miwa (U.S. Pat. No. 6,829,038). The rejection is respectfully traversed.

Claim 1 recites a lithographic projection apparatus comprising, *inter alia*, a dust-tight storage container defining a non-vacuum storage space to contain at least one patterning structure, wherein the storage container is arranged to be coupled with a transfer container to exchange said at least one patterning structure through a closeable passage between the transfer container and the storage container; and a vacuum chamber to receive said at least one patterning structure via or from the storage container. As conceded by the Office Action, Matsumoto fails to teach or suggest a vacuum chamber. The Examiner then relied on Miwa as allegedly teaching this feature and contended that it would have been obvious to provide vacuum to chamber 6 (identified in the Office Action as being “the vacuum chamber” and “the further vacuum chamber,” respectively). Applicants respectfully disagree.

First, Applicants note that claim 1, as amended, recites a dust-tight storage container that defines a non-vacuum storage space. Therefore, the proposed modification by the Office Action, which consists of providing vacuum to the dust-tight storage container, is now contrary to the claim language.

Second, Applicants respectfully submit that the proposed modification would defeat the intended purpose of Matsumoto. Matsumoto clearly discloses that the chamber 6 is purged with a flow of inert gas and that particles should not enter the chamber 6. (*See* col. 3, lines 12-18, col. 4, lines 33-42, col. 6, lines 1-8). If vacuum were provided to chamber 6, such a configuration would undoubtedly facilitate the transfer of particles/contamination from the exterior to the interior of the chamber 6. For at least this reason, Applicants respectfully submit that the proposed modification is improper.

Claims 2-3, 5, 6 and 8 are patentable over Matsumoto, Miwa or a combination thereof at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 10 is patentable over Matsumoto, Miwa or a combination thereof for at least similar reasons as provided above for claim 1. Namely, claim 10 is patentable over Matsumoto, Miwa or a combination thereof at least because this claim recites a method comprising, *inter alia*, transferring a patterning structure from the transfer container into a substantially dust-tight non-vacuum storage space of the lithographic apparatus; and

transferring the patterning structure from the storage space into a vacuum chamber. Applicants respectfully submit that it would not have been obvious to provide this feature based on Matsumoto's and Miwa's teachings because the proposed modification would defeat the intended purpose of Matsumoto. (*See* MPEP §2145). Therefore, claim 10 is patentable.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-3, 5-6, 8 and 10 under 35 U.S.C. §103(a) based on Matsumoto in view of Miwa are respectfully requested.

Claims 12-17 are newly and define additional subject matter that is novel and non-obvious. Claims 12-17 are patentable over the cited references at least by virtue of their dependency from claim 1 or 10. Support for new claims 12-17 may be found, for example, in FIGS. 2A-G and in their corresponding descriptions. It is respectfully submitted that claims 12-17 are in condition for allowance.

All objections and rejections having been addressed, Applicants respectfully submit that the application is in condition for allowance, and a notice to that effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



ROBERT C. PEREZ

Reg. No. 39328

Tel. No. 703.905.2159

Fax No. 703.905.2500

RCP/CFL
P.O. Box 10500
McLean, VA 22102
(703) 905-2000